Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)
	)
FCC's Draft Strategic Plan for	)
Fiscal Years 2006-2011	)

COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

On July 5, 2005, the Commission released its draft strategic plan for fiscal years 2006 through 2011.[1] In its draft plan, the Commission lists the following goals it hopes to achieve over the next five years: (i) ensuring all Americans have affordable access to robust and reliable broadband products and services; (ii) promoting competition in the provision of communications services; (iii) ensuring efficient and innovative use of spectrum; (iv) promoting competition and diversity in the media; and (v) ensuring the Nation's critical communications infrastructure is reliable, interoperable, redundant, and rapidly restorable. The Commission seeks input on its strategic direction as well as the means and strategies the Commission should undertake to accomplish its goals. The Satellite Industry Association ("SIA") files these Comments in support of the Commission's plan and explains herein how the Commission's actions to facilitate the continued development of satellite communications will help achieve the Commission's goals.[2]

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[1] *Public Notice, Public Invited to Review Draft Strategic Plan* (July 5, 2005) ("*Draft Strategic Plan*").

[2] SIA is a U.S.-based trade association providing worldwide representation of the leading satellite operators, service providers, manufacturers, launch services providers, and ground equipment suppliers. SIA is the unified voice of the U.S. satellite industry on policy, regulatory, and legislative issues affecting the satellite business. SIA includes Executive Members: The Boeing Company; Globalstar LLC; Hughes Network Systems, Inc.; ICO Global Communications; Intelsat Ltd.; Iridium Satellite LLC; Lockheed Martin Corp.; Loral Space & Communications Ltd.; Mobile Satellite Ventures LP; Northrop Grumman Corporation;

I. SATELLITES WILL PLAY AN ESSENTIAL ROLE IN HELPING THE COMMISSION ACHIEVE ITS GOALS

A. Satellites are providing all Americans with affordable access to robust and reliable broadband products and services

As the Commission has recognized in other proceedings, satellites are uniquely capable of serving the most rural and remote areas of the Nation's land mass.[3] In the vast regions of the country where terrestrial wireless and wireline providers find it economically infeasible to provide broadband, the availability of broadband depends upon the satellite industry. Accordingly, SIA fully supports the Commission's view that broadband should be defined in a technologically neutral fashion and must include any platform capable of providing high-bandwidth services, including satellites. *Draft Strategic Plan* at 6.

B. Satellites promote competition in the provision of communications services

Satellite operators are a critical source of competition in nearly every segment of the telecommunications marketplace. Satellite operators currently provide a wide range of voice,

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PanAmSat Corporation; SES Americom, Inc., and Terrestar Networks Inc.; and Associate Members Eutelsat Inc., Inmarsat Ltd., IOT Systems; Marshall Communications Corp.; New Skies Satellites Inc., Spacecom Corp.; Stratos Global Corp.; The DirecTV Group; and XM Satellite Radio.

[3] *See, e.g., Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band,* 15 FCC Rcd 16127, ¶ 35 (August 25, 2000) ("*2 GHz Service Order*") ("[W]e believe satellites are an excellent technology for delivering basic and advanced telecommunication services to unserved, rural, insular or economically isolated areas."); *Extending Wireless Telecommunications Services To Tribal Lands, Report and Order and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 11794, ¶ 13 (June 30, 2000) ("[S]atellites may offer cost advantages over wireline access in rural and remote areas, where sparsely populated areas cannot provide the economies of scale to justify the deployment costs of wireline networks. . . . Satellites also provide communications opportunities for communities in geographically isolated areas, such as mountainous regions and deep valleys, where rugged and impassable terrain may make service via terrestrial wireless or wireline telephony economically impractical. Satellites can offer a variety of telecommunications services, from basic low-bandwidth services such as data messaging services and basic telephone service to more advanced, higher bandwidth services, such as voice dispatch, video, and high speed Internet access.").

data, video, and audio services both domestically and abroad on both a fixed and mobile basis in competition with one another as well as with terrestrial wireline and wireless providers that offer similar services on a terrestrial-only basis. Accordingly, the satellite industry is helping the Commission to achieve its objective of "encourag[ing] both intra-modal and inter-modal competition." *Draft Strategic Plan* at 9.

C. Satellite operators are at the forefront of increasing spectrum efficiency and developing innovative uses of spectrum

By necessity, satellite operators have worked to develop systems that use spectrum in the most efficient manner possible. A typical geostationary satellite costs hundreds of millions of dollars to construct, insure, and launch, and non-geostationary systems (with multiple satellites) can cost even more. Satellites have design lives that are very long compared to the equipment used in terrestrial networks. Moreover, satellites are not capable of being modified or repaired once they are placed into orbit. These factors, and the current frequency congestion in many satellite bands, provide compelling reasons for satellite licensees to develop and deploy both reliable and spectrum efficient systems. Satellite networks now provide greater overall capacity, achieve a higher level of frequency reuse, and share spectrum with other satellite networks on a geographically closer basis, than ever before.

Satellite operators are also innovators in developing new uses of spectrum. For example, MSS operators supplementing their networks with an Ancillary Terrestrial Component ("ATC") reuse for terrestrial service in urban areas the same spectrum that they use to provide satellite service to other customers in other areas without diminishing capacity for satellite service.

Indeed, increasing efficient use of spectrum was one of the key factors leading to the Commission's authorization of ATC.[4]

D. Satellite operators promote competition and diversity in media

Satellite operators are also critical to achieving the Commission's goal of promoting competition and diversity in the media. Satellite operators are currently providing video and audio services directly to subscribers via satellite, in competition with terrestrial broadcasters and cable systems which for decades have dominated the media marketplace. The Commission has specifically recognized the critical role satellites are playing in increasing competition in the media marketplace.[5] Moreover, with their ability to offer numerous channels, satellite operators are increasing the diversity of programming available to the American public.[6]

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[4] *See Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, Report and Order*, 18 FCC Rcd 1962, FCC 03-15, IB Docket No. 01-185 (February 10, 2003) ("*ATC Order*"), at ¶ 1 (noting that ATC will "increase the efficiency of spectrum use through MSS network integration and terrestrial reuse"); *id.* ¶ 21 (explaining that "MSS ATC, in essence, allows licensees the flexibility to achieve greater use of their licensed satellite spectrum than possible under our current MSS service rules").

[5] *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eleventh Annual Report*, FCC 05-13 (February 4, 2005), at ¶ 4 ("Cable operators served almost 100 percent of the nation's MVPD subscribers a decade ago, but by June 2003, cable's share of MVPD subscribers declined to 74 percent. As of June 2004, cable operators served approximately 72 percent of all MVPD subscribers. Today, almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers.").

[6] *See 2002 Biennial Regulatory Review, Notice of Proposed Rulemaking*, FCC 02-349 (September 23, 2002), at ¶ 83 ("DBS providers offer dozens, and often hundreds, of channels to subscribers. Entire channels are devoted to particular formats or specialized subjects."); *id.* at ¶ 121 ("DBS contributes to viewpoint diversity through its editorial control over channel selection. In addition, DBS systems are, like cable systems, platforms and outlets for far more channels and programs than can be presented by broadcasters."); *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, Report and Order*, 12 FCC Rcd 5754 (March 3, 1997), at ¶ 1 (stating that the Satellite Digital Audio Radio Service will "increase the variety of programming available to the listening public," will "offer niche channels that would serve listeners with special interests," and will "serve listeners in areas of the country that have been underserved").

E. Satellites will ensure that the Nation's critical communications infrastructure is reliable, interoperable, redundant, and rapidly restorable

The Commission has specifically recognized the ability of satellite networks to meet the needs of the national security and public safety community for reliable communications networks.[7] Satellites offer certain unique capabilities that meet the critical needs of national security and public safety users.[8] First, unlike any other communications technology, satellites are capable of providing truly ubiquitous coverage, from the most rural areas to the densest urban cores.[9] Second, because a satellite operator provides coverage of the entire nation, it offers a single point of contact for designing an interoperable communications network. Third, because

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[7] *See New Part 4 of the Commission's Rules, Notice of Proposed Rulemaking*, FCC 04-30 (February 23, 2004), at ¶ 17 ("[C]ommercial satellite communications have emerged as a significant part of our national communications infrastructure, and we anticipate that they will play an ever-increasing role in providing important services to the military, to emergency responders, to other providers of communications services for restoration purposes, and to personnel who are involved in Homeland Defense and Security and emergency preparedness (e.g., FEMA) functions."); *Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band, Notice of Proposed Rulemaking*, 11 FCC Rcd 11675, 11681 ¶ 12 (1996) (noting that satellites "provide emergency communications to any area in times of emergencies and natural disasters"); *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, Notice of Proposed Rulemaking*, 10 FCC Rcd 3230, ¶ 7 (1995) (noting that satellites "provide nationwide public safety coverage. . . . [and] could satisfy important requirements that cannot be economically satisfied by other means"); *Qualcomm Incorporated, Order*, DA 00-2438, ¶ 7 (Chief, Wireless Bureau, Oct. 30, 2000) (explaining that satellites "may provide an important additional emergency telecommunications resource, especially to callers located in remote and rural areas and callers located in underpopulated regions where neither landline nor terrestrial mobile services exists").

[8] *See* Comments of the Satellite Industry Association, WT Docket No. 05-157 (April 28, 2005), at 9-10 "(*SIA Emergency Response Provider Comments*").

[9] Indeed, the potential for a nationwide interoperable public safety network was one of the key factors resulting in the Commission's decision to allow MSS operators to integrate ATC into their networks. *See ATC Order* ¶ 29 ("By offering ubiquitous coverage with instant, nationwide interoperability, ATC-enhanced MSS may make the public, law enforcement and public-safety organizations easier to reach in the field, regardless of location. Accordingly, MSS ATC may enhance the nation's overall ability to maintain critical telecommunications infrastructure in times of crisis or disaster.").

satellites are located thousands of miles above the earth and are thus not impacted by ground-based disasters, satellite space infrastructure is effectively immune from natural and man-made disasters. Fourth, in addition to voice and data services, satellites can provide national security and public safety users with access to broadband video and other bandwidth-intensive services. Fifth, satellite technology allows for the dynamic reassignment of spectrum resources to those geographic areas most in need of communications capabilities, such as during a disaster. Finally, satellites can enable instantaneous international interoperability.

Given these unique attributes, satellites are already being used to support the communications needs of the federal as well as state and local governments. Indeed, the 2004 National Security Telecommunications Advisory Committee ("NSTAC") Satellite Task Force Report to the President found that the commercial satellite industry is critical to national, economic, and homeland security. With respect to homeland security, satellites are being used today to provide critical services to numerous local police and fire departments, state agencies, the United States Coast Guard, the Federal Emergency Management Agency, the Center for Disease Control and Prevention, and the American Red Cross, among many others.[10] Homeland security interests are using commercial satellites for critical activities such as direct and back-up communications, emergency response services, and continuity of operations during emergencies. The Federal Government is increasingly reliant upon commercial satellite infrastructure for data, voice, and video communications services. Commercial satellites also support many significant

[10] *See* Remarks of FCC Commissioner Michael J. Copps, SIA/SBCA Folger Library Dinner (March 22, 2005) ("I appreciate the critical role satellites are already fulfilling with our government using satellites as primary communications systems and to back-up other critical communications and to provide diversity and redundancy. Over 80% of federal agencies are using satellites to communicate, from FEMA to the Coast Guard to our customs and border control agents. With satellites, our communications infrastructure is more resilient and more difficult to undermine.").

services for the Federal Government, including navigation, remote sensing, and imaging. Moreover, satellites are also critical for the Nation's military operations – both mission critical and logistical. The Department of Defense relies on the commercial satellite industry to meet the expanding communications requirements of the war-fighter. Indeed, commercial satellites are used extensively in supporting troops in Iraq.

II. TO ACHIEVE ITS GOALS, THE COMMISSION SHOULD FACILITATE THE CONTINUED DEVELOPMENT OF SATELLITE COMMUNICATIONS

As discussed above, satellites will play a critical role in helping the Commission to achieve its proposed goals over the next five years. The Commission's efforts to promote the continued development of satellite communications will help the Commission to achieve its proposed goals. Unfortunately, in recent years, the Commission has reallocated critical spectrum used for satellite communications, including spectrum that the Commission had specifically identified as essential for broadband for rural America and for public safety users.[11] The Commission has also permitted an unlimited number of devices to operate in certain satellite bands, subjecting critical satellite communications to increased interference.[12] The Commission's actions to reallocate satellite spectrum and to subject satellite communications to increased interference will not help the Commission achieve the goals stated in its strategic plan.

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[11] *See Amendment of Part 2 of the Commission's Rules, Report and Order, Fourth Report and Order and Further Notice of Proposed Rulemaking*, FCC 04-134, 19 FCC Rcd 13356 (July 16, 2004) (reallocating 5 MHz of Big LEO MSS spectrum to primary terrestrial use); *Amendment of Part 2 of the Commission's Rules, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order*, 18 FCC Rcd 2223 (2003) (reallocating 30 MHz of 2 GHz MSS spectrum to terrestrial services).

[12] *See, e.g., Wireless Operations in the 3650-3700 MHz Band, Report and Order and Memorandum Opinion and Order*, ET Docket No. 04-151 et al, FCC 05-56 (March 16, 2005) (allowing an unlimited number of wireless devices to operate in the extended C-band on a non-exclusive basis subject to registration); *Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, First Report and Order*, 17 FCC Rcd 7435 (April 22, 2002) (allowing unlicensed ultra-wideband devices to operate in satellite bands).

Rather, the Commission can facilitate its goals by preserving existing allocations for satellite communications services and ensuring that these allocations are protected from harmful interference. Moreover, the Commission should work within the international regulatory community to preserve satellite spectrum allocations and to protect satellite spectrum from harmful interference. Unlike many other communications services the Commission regulates, satellite services are subject to both domestic and international regulatory regimes. Actions by international regulatory bodies to reallocate satellite spectrum or to subject satellite spectrum to harmful interference could have a devastating impact on the satellite industry both domestically and abroad. Given the vital role satellites will play in helping the Commission achieve its strategic goals, it is essential that the International Bureau continue in its role of advocating the interests of the domestic satellite industry in international forums.

With respect to public safety, SIA supports the Commission's proposed objective "to ensure that public safety users have adequate spectrum." *Draft Strategic Plan* at 11. In doing so, SIA also urges the Commission to ensure that any additional public safety spectrum allocations allow for flexible use by the public safety community.[13] This flexibility would enable public safety users to select satellite services as a component of spectrum use to meet their growing requirements. Given the increasing demand of public safety users for ubiquitous and interoperable broadband communications networks and the unique ability of satellites to satisfy this demand, the Commission should facilitate, not hinder, the ability of public safety users to integrate satellite services into their public safety spectrum planning. Moreover, the Commission should ensure that its rules and policies afford satellite operators sufficient technical flexibility to

[13] *SIA Emergency Response Provider Comments* at 9-10.

continue to satisfy the demands of the public safety community.[14] The Commission's technical rules and policies should continue to evolve in ways that enable satellite operators to serve the needs of the public safety community.

Finally, given the critical role satellites play in the Nation's communications infrastructure, SIA supports the Commission's plan to "continually update its knowledge and maintain ongoing relationships with the satellite industry and other government agencies concerning specialized technical issues that might impact the availability or reliability of space-based services." *Draft Strategic Plan* at 19. SIA and its members stand ready to support the Commission with this mission.

Conclusion

SIA supports the Commission's draft strategic plan and urges the Commission to facilitate the continued development of satellite communications to help the Commission to achieve its goals.

Respectfully submitted,
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[14] *Id.* at 10.